

AMENDMENTS TO THE CLAIMS:

Claims 1-33 were pending at the time of the Office Action.

Claims 1, 4, 11-19, 21-27, and 29-33 are amended.

Claims 1-33 remain pending.

1. (Currently Amended) A method for sharpening one or more bands of sensor data, the method comprising:

receiving blue, green, red, near-infrared, and panchromatic bands of data;

converting the received blue, green, red, near-infrared, and panchromatic bands of data to power-format;

correcting data of the converted power-formatted panchromatic band based on the received blue, green, red, and near-infrared bands of data; and

sharpening the data of one or more of the green, red, and near-infrared bands based on the corrected data of the panchromatic band.

2. (Original) The method of Claim 1, further comprising combining the sharpened data of the green, red, and near-infrared bands with the received panchromatic band of data.

3. (Original) The method of Claim 2, further comprising generating an image based on the combined data and displaying the generated image.

4. (Currently Amended) A method for sharpening one or more bands of sensor data, the method comprising: The method of Claim 1, wherein correcting includes:

receiving blue, green, red, near-infrared, and panchromatic bands of data;

converting the received blue, green, red, near-infrared, and panchromatic bands of data to power-format;

sharpening the converted power-formatted data of the green, red, and near-infrared bands based on the received panchromatic band of data; and  
correcting the power-formatted data of the panchromatic band based on the sharpened power values for the data of the green, red, and near-infrared bands; and[[.]]  
sharpening the data of one or more of the green, red, and near-infrared bands based on the corrected data of the panchromatic band.

5. (Original) The method of Claim 4, wherein correcting the power-formatted data is further based on width and gap information of the blue, green, red, and near-infrared bands.

6. (Original) The method of Claim 4, wherein correcting data of the panchromatic band further includes resizing the data of the blue, green, red, and near-infrared bands to match resolution of the data of the panchromatic band prior to converting the received blue, green, red, near-infrared, and panchromatic bands of data to the power-format.

7. (Original) The method of Claim 4, wherein converting includes converting the data of the blue, green, red, and near-infrared bands into radiance values and converting the radiance values to the power-format.

8. (Original) The method of Claim 7, wherein converting the radiance values to the power-format is based on upper and lower width limits of the blue, green, red, and near-infrared bands.

9. (Original) The method of Claim 1, further comprising subtracting power of the corrected pan band from power of the original pan band to form a band of data.

10. (Original) The method of Claim 1, wherein the blue, green, red, near-infrared, and panchromatic bands of data are generated by one of an aircraft or satellite sensing system.

11. (Currently Amended) A ~~computer program product residing on a~~ computer-readable medium embodied with a computer program for sharpening one or more bands of sensor data in the visual spectrum, the computer program product comprising:

first computer program code means for receiving blue, green, red, near-infrared, and panchromatic bands of data;

second computer program code means for converting the received blue, green, red, near-infrared, and panchromatic bands of data to power-format;

third computer program code means for correcting data of the panchromatic band based on the received blue, green, red, and near-infrared bands of data; and

third-fourth computer program code means for sharpening the data of one or more of the green, red, and near-infrared bands based on the corrected data of the panchromatic band.

12. (Currently Amended) The computer program product of Claim 11, further comprising ~~fourth-fifth~~ computer program code means for combining the sharpened data of the green, red, and near-infrared bands with the received panchromatic band of data.

13. (Currently Amended) The computer program product of Claim 12, further comprising ~~fifth-six~~ computer program code means for generating an image based on the combined data and a means for displaying the generated image.

14. (Currently Amended) A computer-readable medium embodied with a computer program for sharpening one or more bands of sensor data in the visual spectrum, the computer program product comprising: The computer program product of Claim 11, wherein the second computer program code means includes:

first computer program code means for receiving blue, green, red, near-infrared, and panchromatic bands of data;

~~sixth-second~~ computer program code means for converting the received blue, green, red, near-infrared, and panchromatic bands of data to power-format;  
~~seventh-third~~ computer program code means for sharpening the converted power-formatted data of the green, red, and near-infrared bands based on the received panchromatic band of data; and  
~~eighth-fourth~~ computer program code means for correcting the power-formatted data of the panchromatic band based on the sharpened power values for the data of the green, red, and near-infrared bands[.]; and  
fifth computer program code means for sharpening the data of one or more of the green, red, and near-infrared bands based on the corrected data of the panchromatic band.

15. (Currently Amended) The computer program product of Claim 14, wherein the ~~eighth fourth~~ computer program code means corrects the power-formatted data further based on width and gap information of the blue, green, red, and near-infrared bands.

16. (Currently Amended) The computer program product of Claim 14, wherein the ~~second fourth~~ computer program code means further includes ~~ninth-a sixth~~ computer program code means for resizing the data of the blue, green, red, and near-infrared bands to match resolution of the data of the panchromatic band prior to converting the received blue, green, red, near-infrared, and panchromatic bands of data to ~~econverting to the~~ power-format.

17. (Currently Amended) The computer program product of Claim 14, wherein the ~~sixth second~~ computer program code means includes ~~ninth-a sixth~~ computer program code means for converting the data of the blue, green, red, near-infrared, and panchromatic bands into radiance values and ~~tenth-a seventh~~ computer program code means for converting the radiance values to the power-format.

18. (Currently Amended) The computer program product of Claim 17, wherein the sixth second computer program code means converts the radiance values to the power-format based on upper and lower width limits of the bands.

19. (Currently Amended) The computer program product of Claim 11, further comprising fourth-fifth computer program code means for subtracting power of the corrected pan band from power of the original pan band to form a band of data.

20. (Original) The computer program product of Claim 11, wherein the blue, green, red, near-infrared, and panchromatic bands of data are generated by one of an aircraft or satellite sensing system.

21. (Currently Amended) A system for sharpening one or more bands of sensor data, the system comprising:

a processor coupled to the input interface, the processor including:

a first component configured to receive blue, green, red, near-infrared, and panchromatic bands of data;

a second component configured to convert the received blue, green, red, near-infrared, and panchromatic bands of data to power-format;

a third component configured to correct data of the panchromatic band based on the blue, green, red, and near-infrared bands of data;

a third-forth component configured to sharpen the data of one or more of the green, red, and near-infrared bands based on the corrected data of the panchromatic band; and

a fourth-fifth component configured to combine the sharpened data of the green, red, and near-infrared bands with the received panchromatic band of data; and

a display device coupled to the processor configured to display an image based on the combined data.

22. (Currently Amended) A system for sharpening one or more bands of sensor data, the system comprising: The system of Claim 21, wherein the second component includes:

a processor coupled to the input interface, the processor including:

a first component configured to receive blue, green, red, near-infrared, and panchromatic bands of data;

a fifth-second component configured to convert the received blue, green, red, near-infrared, and panchromatic bands of data to power-format;

a sixth-third component configured to sharpen the converted power-formatted data of the green, red, and near-infrared bands based on the received panchromatic band of data; and

a seventh-fourth component configured to correct the power-formatted data of the panchromatic band based on the sharpened power values for the data of the green, red, and near-infrared bands:[.]]

a fifth component configured to sharpen the data of one or more of the green, red, and near-infrared bands based on the corrected data of the panchromatic band;

a sixth component configured to combine the sharpened data of the green, red, and near-infrared bands with the received panchromatic band of data; and

a display device coupled to the processor configured to display an image based on the combined data.

23. (Currently Amended) The system of Claim 22, wherein the ~~seventh-fourth~~ component corrects the power-formatted data further based on width and gap information of the blue, green, red, and near-infrared bands.

24. (Currently Amended) The system of Claim 22, wherein the ~~second-fourth~~ component further includes ~~a seventh~~ ~~an eighth~~ component configured to resize the data of the blue, green, red, and near-infrared bands to match resolution of the data of the panchromatic band prior to

converting the received blue, green, red, near-infrared, and panchromatic bands of data to the power-format.

25. (Currently Amended) The system of Claim 22, wherein the ~~fifth-second~~ component includes a seventh ~~an eighth~~ component configured to convert the data of blue, green, red, and near-infrared bands into radiance values and ~~an ninth-eighth~~ component configured to convert the radiance values to the power-format.

26. (Currently Amended) The system of Claim 25, wherein the ~~ninth-eighth~~ component converts the radiance values to the power-format based on upper and lower width limits of the respective band.

27. (Currently Amended) The system of Claim 21, wherein the processor includes a ~~fifth~~ sixth component configured to subtract the corrected pan band power from original pan band power to form a band.

28. (Original) The system of Claim 21, wherein the blue, green, red, near-infrared, and panchromatic bands of data are generated by one of an aircraft or satellite sensing system.

29. (Currently Amended) A method for sharpening one or more bands of sensor data, the method comprising:

receiving a plurality of first bands of data at a first resolution level, and a second band of data at a second resolution level, wherein the plurality of bands of data are included within the second band and the first resolution level is less than the second resolution level;

converting the first and second bands of data to power-format;

correcting data of the second band based on the ~~plurality of first bands of data~~ power values of the first and second bands of data; and

sharpening the data of one or more of the plurality of first bands based on the corrected data of the second band.

30. (Currently Amended) A method for sharpening one or more bands of sensor data, the method comprising:

receiving a plurality of first bands of data at a first resolution level, and a second band of data at a second resolution level, wherein the plurality of bands of data are included within the second band and the first resolution level is less than the second resolution level;

converting the first and second bands of data to power-format;

correcting data of the second band based on power values of the first and second bands of data; and

sharpening the data of one or more of the plurality of first bands based on the corrected data of the second band ~~The method of Claim 29, wherein correcting includes:~~

determining power values for gaps between each of the plurality of first bands of data;

determining a total power value for the second band of data; and

removing the determined power values for gaps between each of the plurality of first bands of data from the determined total power value for the second band of data.

31. (Currently Amended) ~~A computer program product residing on a computer-readable medium embodied with a computer program~~ for sharpening one or more bands of sensor data in the visual spectrum, the computer program product comprising:



first computer program code means configured to receive a plurality of first bands of data at a first resolution level, and a second band of data at a second resolution level, wherein the plurality of bands of data are included within the second band and the first resolution level is less than the second resolution level;

second computer program code means configured to convert the first and second bands of data to power-format;

third computer program code means configured to correct data of the second band based on the plurality of first bands of data power values of the first and second bands of data; and

third-fourth computer program code means configured to sharpen the data of one or more of the plurality of first bands based on the corrected data of the second band.

32. (Currently Amended) The computer program product of Claim 31, wherein the ~~second~~ third computer program code means includes:

~~four-fifth~~ computer program code means configured to determine power values for gaps between each of the plurality of first bands of data;

~~fifth-sixth~~ computer program code means configured to determine a total power value for the second band of data; and

~~sixth-seventh~~ computer program code means configured to remove the determined power values for gaps between each of the plurality of first bands of data from the determined a total power value for the second band of data.

33. (Currently Amended) A system for sharpening one or more bands of sensor data, the system comprising:

a processor coupled to the input interface, the processor including:

a first component configured to receive a plurality of first bands of data at a first resolution level, and a second band of data at a second resolution level, wherein the plurality of bands of data are included within the second band and the first resolution level is less than the second resolution level;

a second component configured to convert the first and second bands of data to power-format;

a third component configured to correct data of the second band based on the power values of the first and second bands of data;~~plurality of first bands of data;~~

a ~~third-fourth~~ component configured to sharpen the data of one or more of the plurality of first bands based on the corrected data of the second band; and

a ~~fourth-fifth~~ component configured to combine the sharpened data with the second band of data.

a display device coupled to the processor configured to display an image based on the combined data.